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(71) Applicant *(for all designated States except US)*: ELTEK HOLDINGS PTY. LTD. [AU/AU]; 90-94 Tram Road, Doncaster, VIC 3108 (AU).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)* : KNIGHT, John, Keith [NZ/AU]; 16 Frederick Street, Doncaster, VIC 3108 (AU).

(74) Agents: PRYOR, Geoffrey, Charles et al.; Davies & Collison, 1 Little Collins Street, Melbourne, VIC 3000 (AU).

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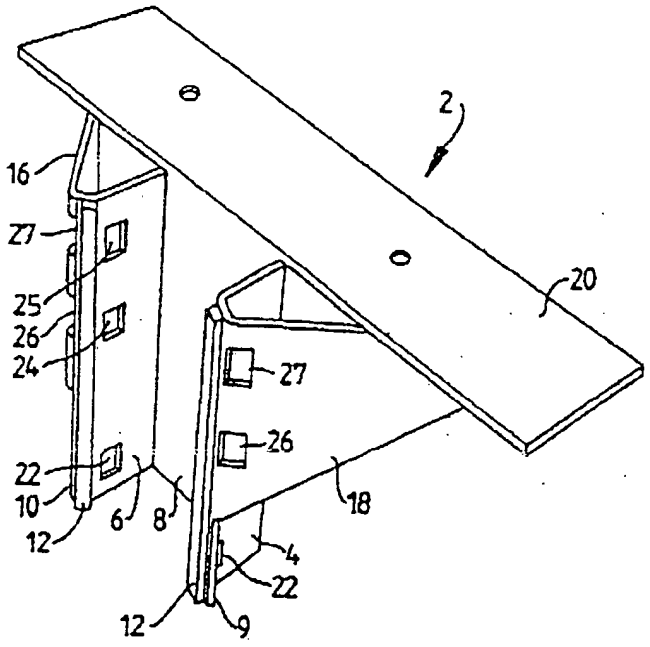

(57) Abstract

A bracket (2) for connecting a cross-arm (38) to a utility pole (14), the bracket comprising a channel shaped body which has two abutment portions (9, 10) which bear against the outer surface of the pole (14), the bracket including openings (22, 24, 25, 26, 27) through which bands (32, 34, 36) pass for encircling the pole and clamping the bracket thereto, the bracket further including a plate (20) to which the cross-arm (38) is bolted.

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A BRACKET

This invention relates to a bracket.

More particularly, the invention relates to a bracket for supporting a cross-arm for a utility pole.

According to the present invention there is provided a bracket for supporting a cross-arm, said bracket comprising a cross-arm support member and at least two abutment portions which in use bear against the outer surface of a utility pole at spaced locations thereon, first mounting means for mounting the bracket on the pole, and second mounting means for mounting a cross-arm on the cross-arm support member.

Preferably, the two abutment portions

comprise elongate faces which engage locations which extend generally longitudinally of the pole.

The first mounting means may comprise openings in the bracket for receipt of straps or bands which extend about the pole and connect the bracket to the pole.

The second mounting means may include openings in the cross-arm support member which in use receive bolts which extend through the cross-arm. The second mounting means may include washers which are located on the opposite face of the cross-arm to that face which engages the support member.

The invention will now be further described with reference to the accompanying drawings in which:

Figure 1 is a perspective view of the bracket.

Figure 2 is a front view of the bracket.

Figure 3 is a side view of the bracket.

Figure 4 is a schematic plan view showing the bracket connected to a pole, and

Figure 5 is a schematic side view showing the bracket connected to a pole.

The bracket 2 illustrated in Figures 1 to 3 comprises a generally upright channel portion which is generally C-shaped in cross-section. The channel

portion includes side flanges 4 and 6 and web 8. Extending outwardly from the flanges 4 and 6 are abutment faces 9 and 10. The abutment faces 9 and 10 have mounted thereon strips 12 of resilient material such as silicon rubber or other resilient material. The strips make contact with the outer surface of a pole 14, as diagramatically illustrated in Figure 4. It will be seen that the abutment faces 9 and 10 are, generally speaking, parallel to the adjacent portions of the surfaces of the poles near the point of contact thereof. Extending inwardly from the abutment faces 9 and 10 are gusset plates 16 and 18 which are generally triangular in shape. The upper edges of the plates 16 and 18, as well as the upper edges of the flanges 4 and 6 together with the web 8 are coplanar. A support plate 20 is connected to those upper edges, preferably by welding.

The flanges 6 and 8 include lower openings 22 therethrough. The flanges 6 and 8 also include intermediate and upper openings 24 and 25 which are aligned with openings 26 and 27 in the gusset plates 16 and 18.

Figures 4 and 5 illustrate diagramatically the manner in which the bracket 2 is connected to the pole 14. In this arrangement three stainless steel straps 32, 34 and 36 are used to connect the bracket to the pole. The lower strap 32 passes through the openings 22 in the flanges 6 and 8 and clamps the lower part of the bracket to the pole. The intermediate strap 34 passes through the openings 24 and 26 and clamps the middle part of the bracket to the pole. The upper strap 36 passes through the

openings 25 and 27 and clamps the upper part of the bracket to the pole. As seen in Figure 4, the strips 12 will be compressed against the face of the pole 14 in view of the tension in the straps.

After mounting the bracket 2, a cross-arm 38 is then mounted on the plate 20. The cross-arm 38 is held in position by a pair of bolts 40 which extend through bores in the cross-arm and through holes 42 provided in the plate 20. Washers 44 can be located on the upper surface of the cross-arm to avoid stress concentrations caused by the head of the bolt 40. The washers 44 can be of square shape and approximate the width of the cross-arm 38.

It will be appreciated that in accordance with the invention, the cross-arm 38 can be connected to the pole 14 without the use of bolts which extend through the pole. It has been found from past experience that bolts tend to cause rotting of the pole in the vicinity of the pole. Further, the cross-arm 38 is held away from the pole thereby effectively increasing the electrical insulation therefrom. The absence of the bolt also decreases the likelihood of electrical leakage through the bolt into the core of the pole.

Many modifications will be apparent to those skilled in the art without departing from the spirit and scope of the invention.

CLAIMS:

1. A bracket (2) for supporting a cross-arm (38), said bracket comprising a cross-arm support member (20) and at least two abutment portions (9, 10) which in use bear against the outer surface of a utility pole (14) at spaced locations thereon, first mounting means (22, 24, 25, 26, 27, 32, 34, 36) for mounting the bracket on the pole, and second mounting means (40, 42) for mounting a cross-arm on the cross-arm support member.

2. A bracket as claimed in claim 1 including a channel portion which includes side flanges (4, 6) and a web (8), said bracket further including gusset plates (16, 18) which extend from respective side flanges generally obliquely away from respective elongate faces (9, 10) and towards said web (8).

3. A bracket as claimed in claim 1 or 2 wherein the two abutment portions comprise elongate faces (9, 10) which engage locations which extend generally longitudinally of the pole, said faces being located at forward edges of said side flanges (4, 6).

4. A bracket as claimed in claim 1, 2 or 3 wherein the first mounting means comprises openings (22, 24, 25, 26, 27) in the bracket for receipt of straps or bands (32, 34, 36) which extend about the pole (14) and connect the bracket (2) to the pole.

5. A bracket as claimed in any one of claims 1 to 4 wherein the second mounting means includes

openings (42) in the cross-arm support member (20) which in use receive bolts (40) which extend through the cross-arm (38).

6. A bracket as claimed in any one of claims 1 to 5 wherein the second mounting means includes washers (44) which are located on the opposite face of the cross-arm (38) to that face which engages the support member (20).

7. A bracket as claimed in claim 2 wherein the cross-arm support member comprises a plate (20) which is connected to upper edges of said web (8) and gusset plates (16, 18) such that the plate is laterally spaced from said elongate faces (9, 10).

8. A bracket as claimed in claim 2 or 7 wherein the first mounting means comprise pairs of aligned openings in the side flanges and gusset plates (24, 26 and 25, 27) through which straps or bands (34, 36) can pass.

9. A bracket as claimed in claim 8 wherein lower openings (22) are provided in the respective side flanges (9, 10) through which a lower strap or band (32) may pass.

10. A bracket as claimed in any preceding claim including resilient strips (12) located on said abutment portions (9, 10).

11. A utility pole assembly comprising an upright pole (14), and a cross-arm (38), the cross-arm being mounted on the pole by a bracket as claimed in any one of claims 1 to 10.

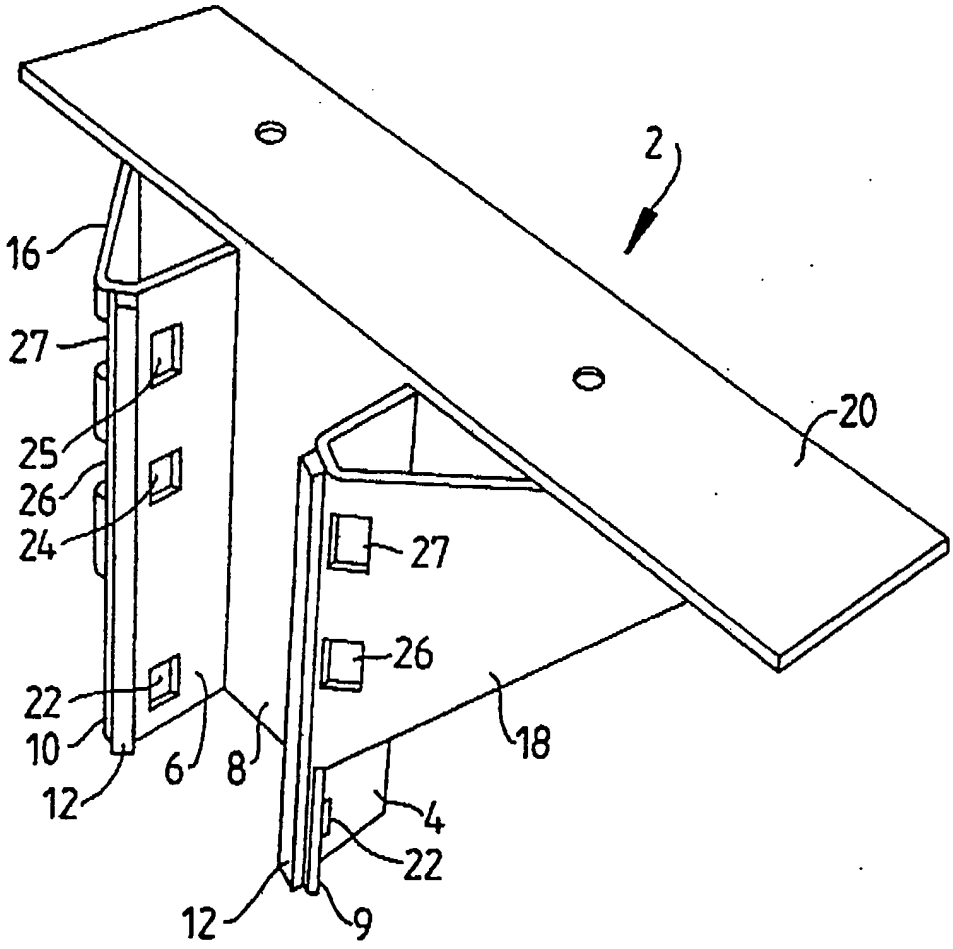

FIG 1

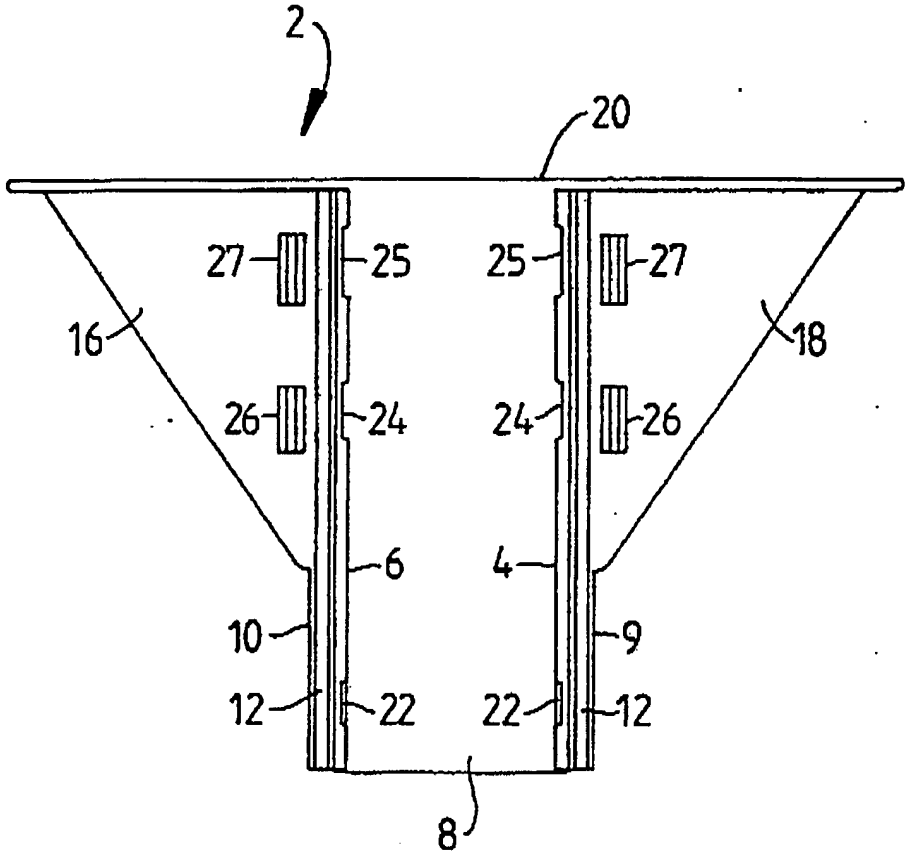

FIG 2

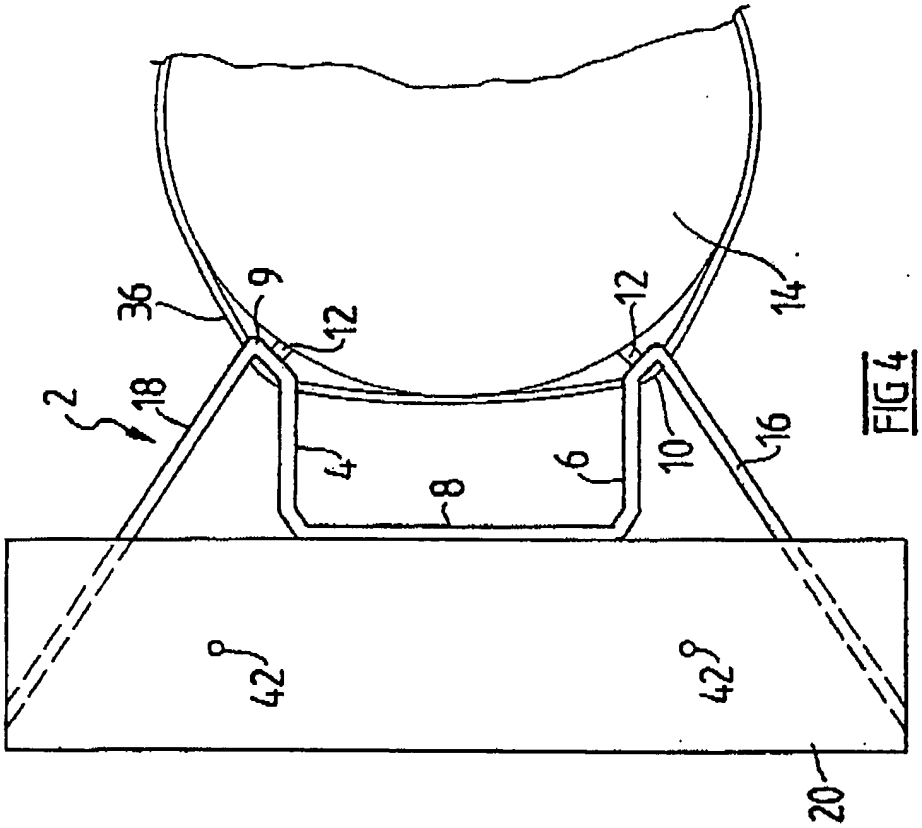

FIG 4

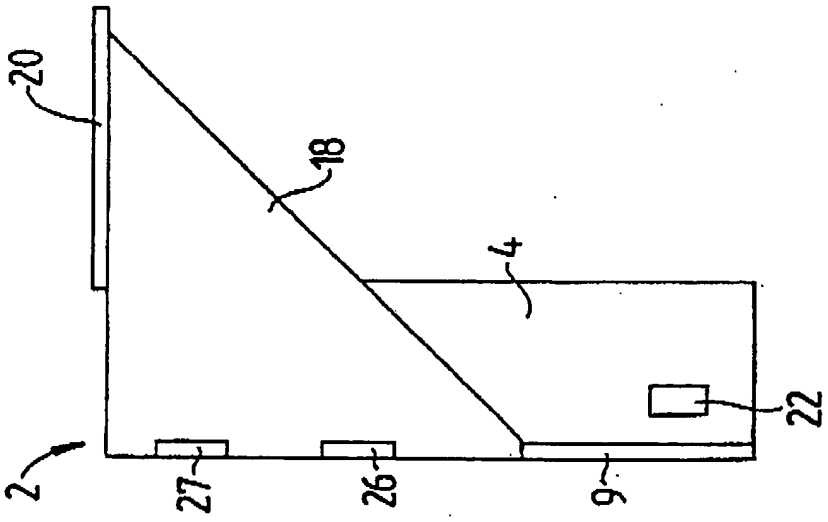

FIG 3

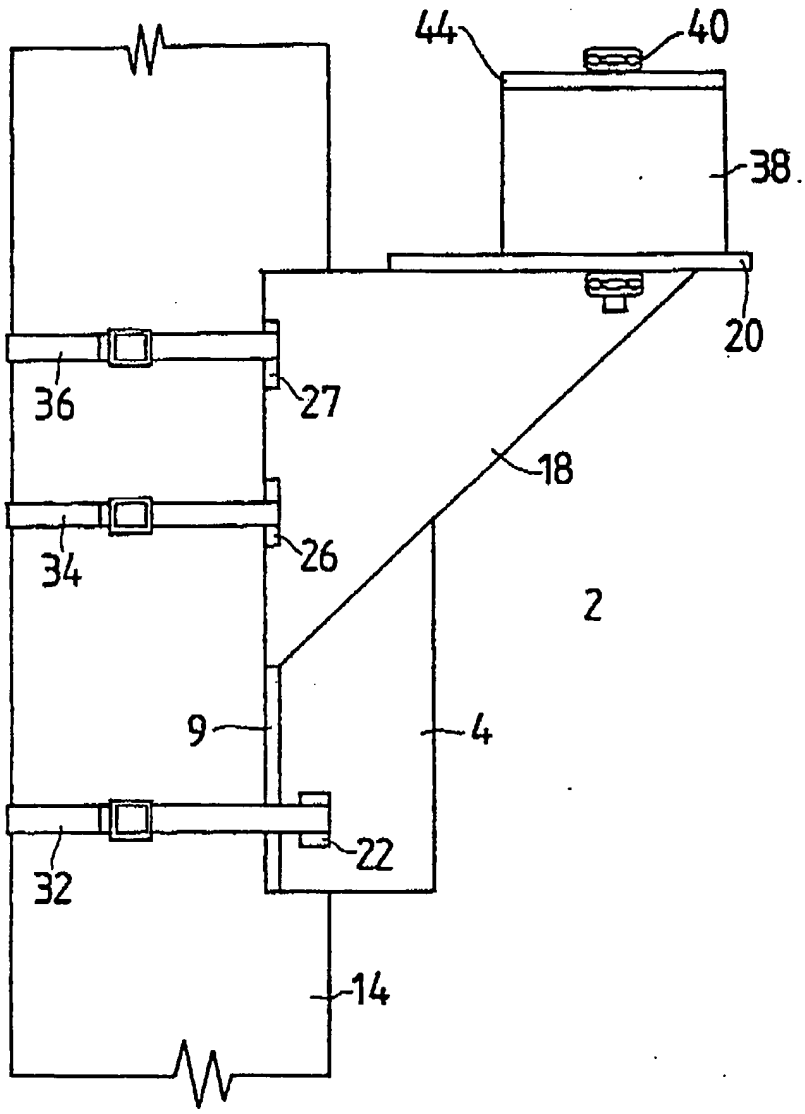

FIG 5

INTERNATIONAL SEARCH REPORT

International Application No PCT/AU 88/00131

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)

According to International Patent Classification (IPC) or to both National Classification and IPC

Int. Cl.[4] E04H 12/24; E04G 5/06

II. FIELDS SEARCHED

Minimum Documentation Searched

Classification System	Classification Symbols
IPC(4)	E04H 12/24, E04G 5/06

Documentation Searched other than Minimum Documentation to the Extent that such Documents are included in the Fields Searched

AU : IPC as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
X	GB,A, 578522 (HAWES) 2 July 1946 (02.07.46)	(1-5)
X	CH,A, 395504 (MAURER-KESSLER) 31 December 1965 (31.12.65)	(1)
X	CH,A, 295597 (DYM) 16 March 1954 (16.03.54)	(1)
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IV. CERTIFICATION

Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report
5 July 1988 (05.07.88)	(12.07.88) 12 JULY 1988
International Searching Authority: Australian Patent Office	Signature of Authorized Officer: D. Lee DAVID LEE

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